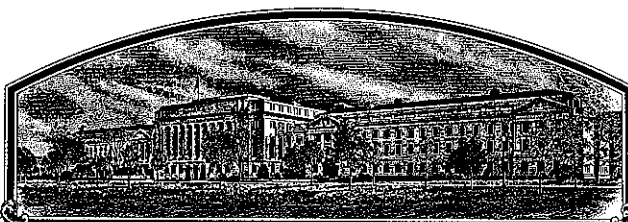


No.

9200152



# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

**Northrup King Co.**

Whereas, THERE HAS BEEN PRESENTED TO THE

**Secretary of Agriculture**

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *eighteen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

WHEAT

'Coker 9543'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this 29th day of April in the year of our Lord one thousand nine hundred and ninety-four.

Attest:

*Kenneth Evans*  
Commissioner  
Plant Variety Protection Office  
Agricultural Marketing Service

*Mike Long*  
Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE  
(Instructions on reverse)

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) (as it is to appear on the Certificate)		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NO.	3. VARIETY NAME
Northrup King Co.		CL860426	Coker 9543
4. ADDRESS (street and no. or R.F.D. no., city, state, and ZIP)		5. PHONE (include area code)	FOR OFFICIAL USE ONLY PVPO NUMBER 9200152
P.O. Box 959 Minneapolis, MN 55440		(612) 593-7333	
6. GENUS AND SPECIES NAME	7. FAMILY NAME (Botanical)		F I L I N G Date April 13, 1992 Time <input type="checkbox"/> A.M. <input type="checkbox"/> P.M. F E E S Filing and Examination Fee: \$ 2150. - Date Apr. 13, 1992 R E C E I V E D Certificate Fee: \$ 250.00 Date April 1, 1994
Triticum aestivum L.	Gramineae		
8. CROP KIND NAME (Common Name)	9. DATE OF DETERMINATION		
Common wheat	September, 1988		
10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION (Corporation, partnership, association, etc.)			
Corporation			
11. IF INCORPORATED, GIVE STATE OF INCORPORATION		12. DATE OF INCORPORATION	
Delaware		1976	

13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS

R. W. Romig  
Northrup King Co.  
P.O. Box 959  
Minneapolis, MN 55440

PHONE (include area code): (612) 593-7305

14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow INSTRUCTIONS on reverse)

- a. ☒ Exhibit A, Origin and Breeding History of the Variety.  
b. ☒ Exhibit B, Novelty Statement.  
c. ☒ Exhibit C, Objective Description of Variety.  
d. ☐ Exhibit D, Additional Description of Variety.  
e. ☒ Exhibit E, Statement of the Basis of Applicant's Ownership.  
f. ☒ Seed Sample (2,500 viable untreated seeds). Date Seed Sample mailed to Plant Variety Protection Office \_\_\_\_\_  
g. ☐ Filing and Examination Fee (\$2,150) made payable to "Treasurer of the United States."

15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See section 83(a) of the Plant Variety Protection Act.)

☒ YES (If "YES," answer items 16 and 17 below) ☐ NO (If "NO," skip to item 18 below)

16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?

☒ YES ☐ NO

17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?

☒ FOUNDATION ☒ REGISTERED ☒ CERTIFIED

18. DID THE APPLICANT(S) PREVIOUSLY FILE FOR PROTECTION OF THE VARIETY IN THE U.S.?

☐ YES (If "YES," through ☐ Plant Variety Protection Act ☐ Patent Act. Give date: \_\_\_\_\_)  
☒ NO

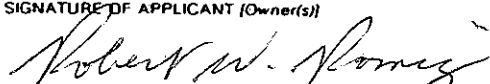
19. HAS THE VARIETY BEEN RELEASED, USED, OFFERED FOR SALE, OR MARKETING IN THE U.S. OR OTHER COUNTRIES?

☒ YES (If "YES," give names of countries and dates) U.S.A., fall of 1991  
☐ NO

20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in section 41, and is entitled to protection under the provisions of section 42 of the Plant Variety Protection Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF APPLICANT [Owner(s)]	CAPACITY OR TITLE	DATE
	Vice President Research	4/9/92
SIGNATURE OF APPLICANT [Owner(s)]	CAPACITY OR TITLE	DATE

**EXHIBIT A****Origin and Breeding History**

The soft, red winter wheat (*Triticum aestivum*) variety Coker 9543 is derived from the cross Coker 916/C81B60 we made at Hartsville, SC in 1981. The pedigree of C81B60 is Oasis/Coker 762. The breeding history follows:

<u>Season</u>	<u>Generation</u>	<u>Activity</u>
Spring 1981	Cross made	Cross identified as X874
1981-82	F1	Seed bulked
1982-83	F2	Space planted and heads selected
1983-84	F3	Heads reselected from head row #7920
1984-85	F4	Head row #20803 selected
1985-86	F5	Line #86B-72 tested
1986-87	F6	Continued testing; assigned CL860426
1987-88	F7	Advanced tests
1988-89	F8	Elite test and increase at Bay, AR
1989-90	F9	Elite test and small increase by Production Department
1990-91	F10	Elite test and large increase by Production Department
1991-92	F11	Seed sold to TGN growers for certified seed production

Coker 9543 has been widely tested in Northrup King research trials for the past four years. It was also evaluated in 1988-89 and 1989-90 in the Uniform Eastern Soft Red Winter Wheat Nursery. It was entered in several state trials for the 1990-91 season. Based on performance in these tests, Coker 9543 has been uniform and stable.

Plants of Coker 9543 are very uniform in appearance; the few variants observed in the variety have been slightly taller/later types and very rarely awned types. The frequency of variants should not exceed 5/10,000.

**EXHIBIT B****Novelty Statement**

The variety Coker 9543 most closely resembles the variety Coker 747. It can be differentiated on the basis of coleoptile color and reaction to hessian fly (*Phytophaga destructor*). The variety Coker 9543 has a green coleoptile with a vertical stripe whereas Coker 747 has a green coleoptile without the vertical stripe. The variety Coker 9543 is resistant to biotype E of hessian fly (*P. destructor*) whereas Coker 747 is susceptible.

U. S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
LIVESTOCK, MEAT, GRAIN AND SEED DIVISION  
BELTSVILLE, MARYLAND 20785

EXHIBIT C  
(Wheat)

OBJECTIVE DESCRIPTION OF VARIETY  
WHEAT (TRITICUM SPP.)

INSTRUCTIONS: See Reverse.

NAME OF APPLICANT(S)

Northrup King Co.

ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code)

P.O. Box 959

Minneapolis, MN 55440

FOR OFFICIAL USE ONLY

PVPO NUMBER

9200152

VARIETY NAME OR TEMPORARY  
DESIGNATION

Coker 9543

Place the appropriate number that describes the varietal character of this variety in the boxes below.  
Place a zero in first box (e.g.,     or   ) when number is either 99 or less or 9 or less.

## 1. KIND:

1 = COMMON 2 = DURUM 3 = EMMER 4 = SPELT 5 = POLISH 6 = POULARD 7 = CLUB

## 2. TYPE:

1 = SPRING 2 = WINTER 3 = OTHER (Specify)   1 = SOFT 2 = HARD 3 = OTHER (Specify)

1 = WHITE 2 = RED 3 = OTHER (Specify)

## 3. SEASON - NUMBER OF DAYS FROM EMERGENCE TO:

FIRST FLOWERING    LAST FLOWERING

## 4. MATURITY (50% Flowering):

NO. OF DAYS EARLIER THAN   1 = ARTHUR 2 = SCOUT 3 = CHRIS 7 = Caldwell

NO. OF DAYS LATER THAN   4 = LEMHI 5 = NUGAINES 6 = LEEDS 8 = Coker 916

## 5. PLANT HEIGHT (From soil level to top of head):

CM. HIGH

CM. TALLER THAN

CM. SHORTER THAN   1 = ARTHUR 2 = SCOUT 3 = CHRIS 7 = Caldwell  
4 = LEMHI 5 = NUGAINES 6 = LEEDS 8 = Coker 983

## 6. PLANT COLOR AT BOOTING (See reverse):

1 = YELLOW GREEN 2 = GREEN 3 = BLUE GREEN

## 7. ANTER COLOR:

1 = YELLOW 2 = PURPLE

## 8. STEM:

Anthocyanin: 1 = ABSENT 2 = PRESENT

Waxy bloom: 1 = ABSENT 2 = PRESENT

Hairiness of last internode of rachis: 1 = ABSENT 2 = PRESENT

Internodes: 1 = HOLLOW 2 = SOLID 3 = basal-solid, upper-hollow

3 to 4  
NO. OF NODES (Originating from node above ground)

CM. INTERNODE LENGTH BETWEEN FLAG LEAF AND LEAF BELOW

## 9. AURICLES:

Anthocyanin: 1 = ABSENT 2 = PRESENT

Hairiness: 1 = ABSENT 2 = PRESENT

## 10. LEAF:

Flag leaf at booting stage: 1 = ERECT 2 = RECURVED  
3 = OTHER (Specify):

Flag leaf: 1 = NOT TWISTED 2 = TWISTED

Hairs of first leaf sheath: 1 = ABSENT 2 = PRESENT

Waxy bloom of flag leaf sheath: 1 = ABSENT 2 = PRESENT

MM. LEAF WIDTH (First leaf below flag leaf)

CM. LEAF LENGTH (First leaf below flag leaf):

## 11. HEAD:

☐ 3 Density: 1 = LAX 2 = DENSE 3 = Mid-dense

☐ 1 Shape: 1 = TAPERING 2 = STRAP 3 = CLAVATE  
4 = OTHER (Specify) \_\_\_\_\_

☐ 3 Awnedness: 1 = AWNLESS 2 = APICALLY AWNLETED 3 = AWNLETED 4 = AWNED

☐ 7 Color at maturity: 1 = WHITE 2 = YELLOW 3 = PINK 4 = RED  
5 = BROWN 6 = BLACK 7 = OTHER (Specify): tan

☐ 0 ☐ 7 CM. LENGTH

☐ 1 ☐ 0 MM. WIDTH

## 12. GLUMES AT MATURITY:

☐ 2 Length: 1 = SHORT (CA. 7 mm.) 2 = MEDIUM (CA. 8 mm.)  
3 = LONG (CA. 9 mm.)

☐ 2 Width: 1 = NARROW (CA. 3 mm.) 2 = MEDIUM (CA. 3.5 mm.)  
3 = WIDE (CA. 4 mm.)

☐ 3 Shoulder shape: 1 = WANTING 2 = OBLIQUE 3 = ROUNDED  
4 = SQUARE 5 = ELEVATED 6 = APICULATE

☐ 2 Beak: 1 = OBTUSE 2 = ACUTE 3 = ACUMINATE

## 13. COLEOPTILE COLOR:

☐ 4 1 = WHITE 2 = RED 3 = PURPLE 4 = white with  
vertical stripe

## 14. SEEDLING ANTHOCYANIN:

☐ 2 1 = ABSENT 2 = PRESENT

## 15. JUVENILE PLANT GROWTH HABIT:

☐ 1 1 = PROSTRATE 2 = SEMI-ERECT 3 = ERECT

## 16. SEED:

☐ 3 Shape: 1 = OVATE 2 = OVAL 3 = ELLIPTICAL  
to ovate

☐ 1 Check: 1 = ROUNDED 2 = ANGULAR

☐ 2 Brush: 1 = SHORT 2 = MEDIUM 3 = LONG

☐ 1 Brush: 1 = NOT COLLARED 2 = COLLARED

☐ 5 Phenol reaction 1 = IVORY 2 = FAWN 3 = LT. BROWN  
(See instructions): 4 = BROWN 5 = BLACK

☐ 5 Color: 1 = WHITE 2 = AMBER 3 = RED 4 = PURPLE 5 = OTHER (Specify) Medium to dark brown

☐ 0 ☐ 6 MM. LENGTH

☐ 0 ☐ 3 MM. WIDTH

☐ 3 ☐ 4 GM. PER 1000 SEEDS

## 17. SEED CREASE:

☐ 2 Width: 1 = 60% OR LESS OF KERNEL 'WINOKA'  
2 = 80% OR LESS OF KERNEL 'CHRIS'  
3 = NEARLY AS WIDE AS KERNEL 'LEMHI'

☐ 2 Depth: 1 = 20% OR LESS OF KERNEL 'SCOUT'  
2 = 35% OR LESS OF KERNEL 'CHRIS'  
3 = 50% OR LESS OF KERNEL 'LEMHI'

## 18. DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant) 3 = Moderately resistant

☐ 3 STEM RUST (Races) ☐ 3 LEAF RUST (Races) ☐ 3 STRIPE RUST (Races) ☐ 0 LOOSE SMUT

☐ 2 POWDERY MILDEW ☐ 0 BUNT ☐ 2 OTHER (Specify) soil-borne virus

## 19. INSECT: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

☐ 0 SAWFLY ☐ 0 APHID (Bydv.) ☐ 0 GREEN BUG ☐ 0 CEREAL LEAF BEETLE

☐ OTHER (Specify) \_\_\_\_\_ HESSIAN FLY  
RACES: ☐ GP ☐ A ☐ B ☐ C  
☐ D ☐ 2 E ☐ F ☐ G

## 20. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED:

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant tillering	Coker 747	Seed size	Coker 916
Leaf size	Coker 747	Seed shape	Coker 916
Leaf color	Coker 747	Coleoptile elongation	Coker 747
Leaf carriage	Coker 747	Seedling pigmentation	Nudura

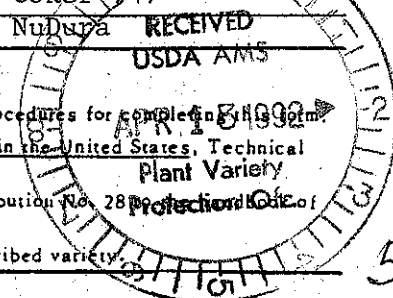
## INSTRUCTIONS

GENERAL: The following publications may be used as a reference aid for the standardization of terms and procedures for completion of this form.

(a) L.W. Briggie and L. P. Reitz, 1963, Classification of Triticum Species and Wheat Varieties Grown in the United States, Technical Bulletin 1278, United States Department of Agriculture.

(b) W.E. Walls, 1965, A Standardized Phenol Method for Testing Wheat Seeds for Varietal Purity, contribution No. 28 to the Bulletin of seed testing prepared by the Association of Official Seed Analysts. (See attachment.)

LEAF COLOR: Nickerson's or any recognized color fan should be used to determine the leaf color of the described variety.



9200152

## Coker 9543

## 2. Factors of Adaptation

A. DISEASE	REACTION*
Leaf rust	Resistant
Stem rust	Moderately resistant
Stripe rust	Moderately resistant
Powdery mildew	Resistant
<u>Septoria tritici</u>	Moderately resistant
<u>Septoria nodorum</u>	Susceptible
Soil borne virus complex	Resistant

\*Based on field races of pathogens prevalent in Mid-South during period 1986-91.

## C. Milling and Baking Quality Evaluation.

Quality Parameter	----- Coker 9543/yr -----				----- Standard/yr*-----			
	1987	1988	1989	1990	1987	1988	1989	1990
Milling Quality	106.8	103.1	95.0	98.3	100	100	100	100
Micro T.W. (kg/hd)		79.7	81.0	79.8		74.2	77.0	77.4
Softness Equivalent	60.49	54.2	54.0	54.7	66.34	57.4	58.9	53.5
Flour yield %	71.98	70.9	74.2	76.1	70.6	70.1	74.9	77.2
Ash		.32				.36		
Break flour yield	37.6	29.8			42.3	32.5		
Ext.	74.6	73.3			72.7	72.5		
E.S.I.	13.2	14.9			15.8	16.0		
Baking Quality	96.2	102.2	77.3	101.4	100	100	100	100
Flour protein %	11.0	8.6	9.44	8.61	9.8	9.6	9.23	10.78
Micro AWRL	51.7	54.2	53.2	54.9	55.6	54.8	51.6	52.7
Cookie diameter		17.4	17.73	17.7		17.4	17.87	17.0
Top grain score		4	1	2		2	3	1

\*Standard was Florida 302 in 1988, 1989, and 1990; McNair 1003 in 1987.

**EXHIBIT E****Statement of the Basis of Applicant's Ownership**

Wheat variety Coker 9543 was developed by the Northrup King Co. cereals breeding staff from germplasm sources cited in Exhibit A of this application. Northrup King Co. believes that the variety is novel as defined in the Plant Variety Protection Act and, therefore, that Northrup King Co. is the sole owner of the variety.